

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P965783

Luminaire Tested: **NAV-SB4A-830-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965783
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13785.2 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G3

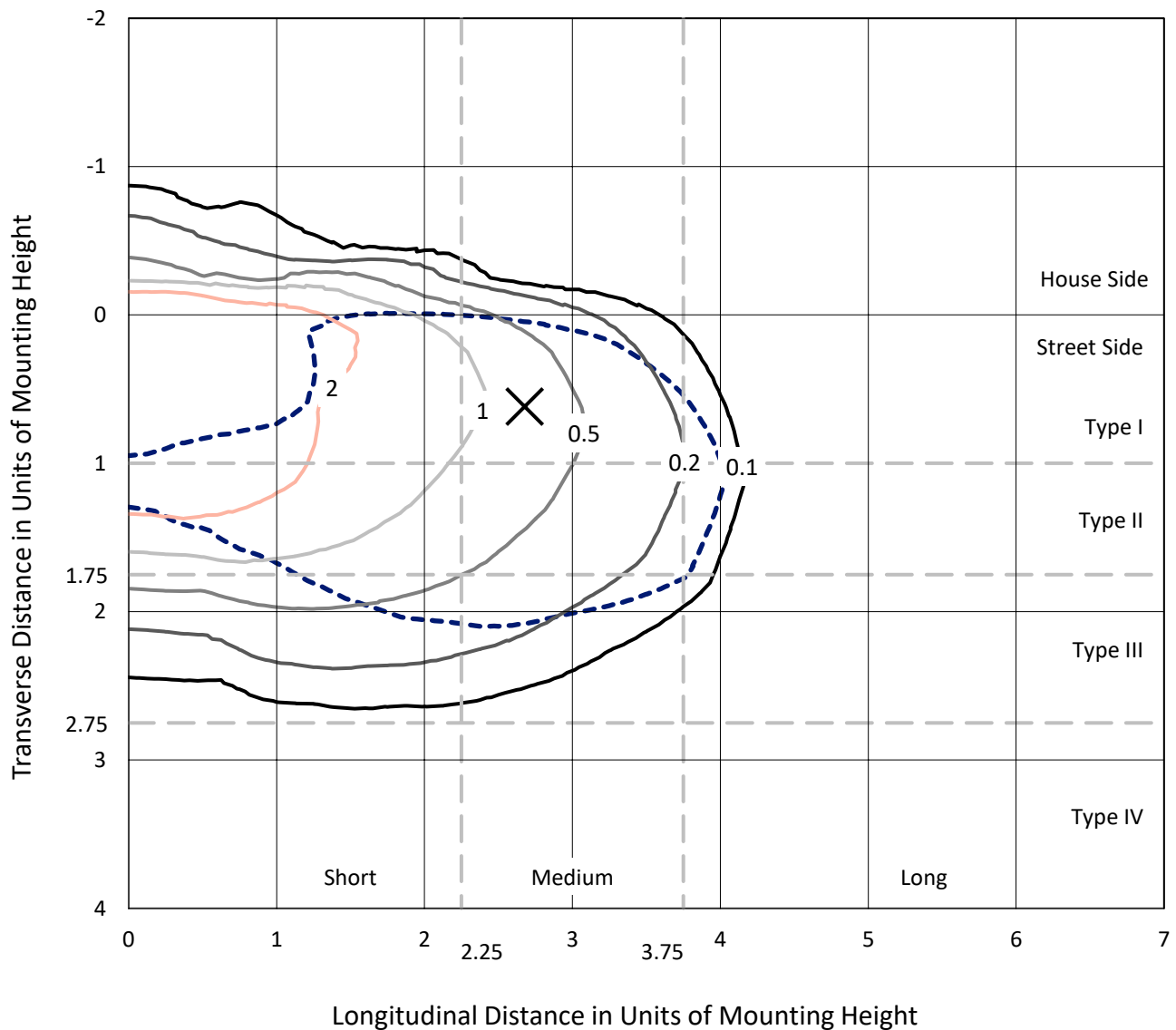
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

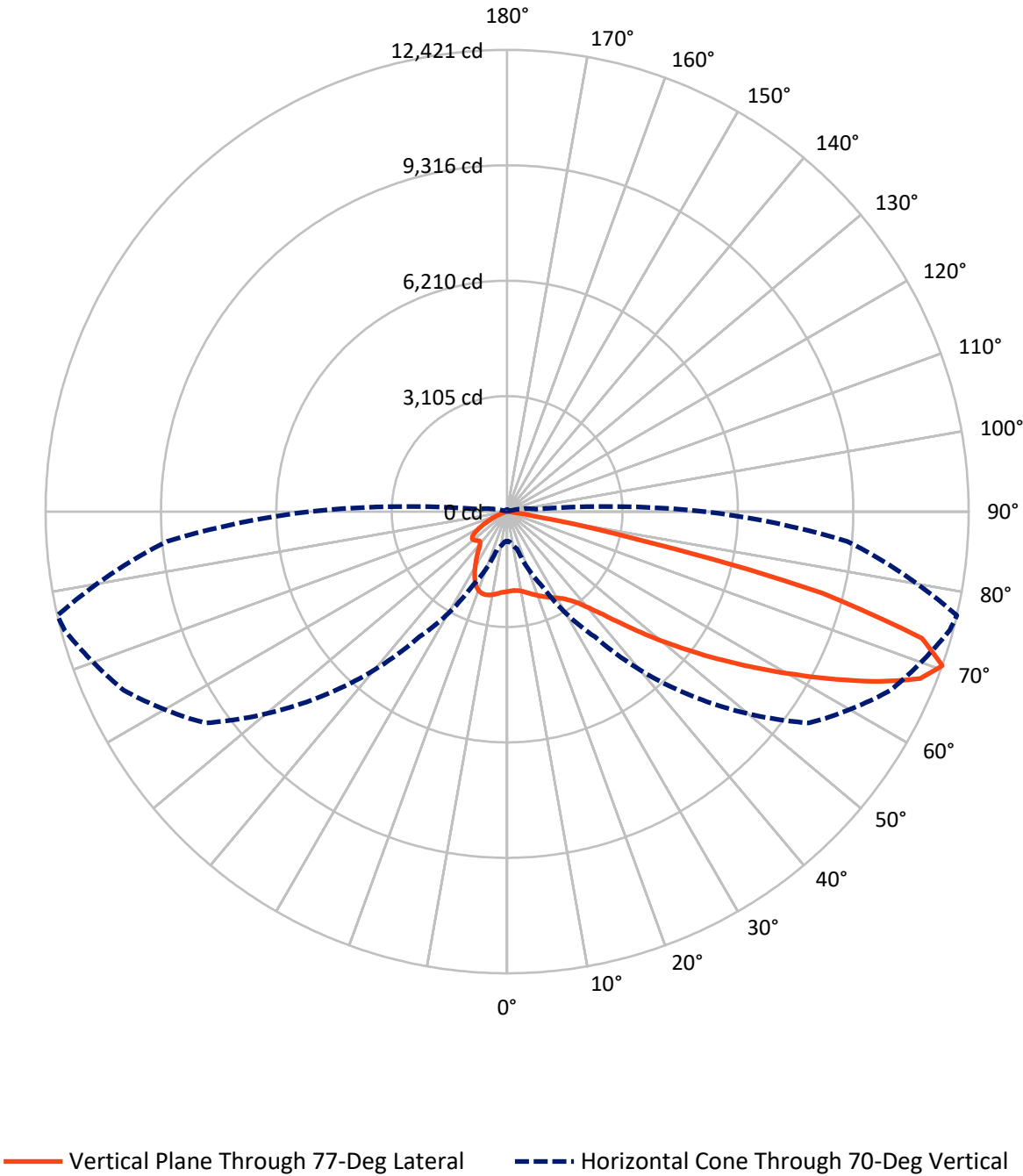
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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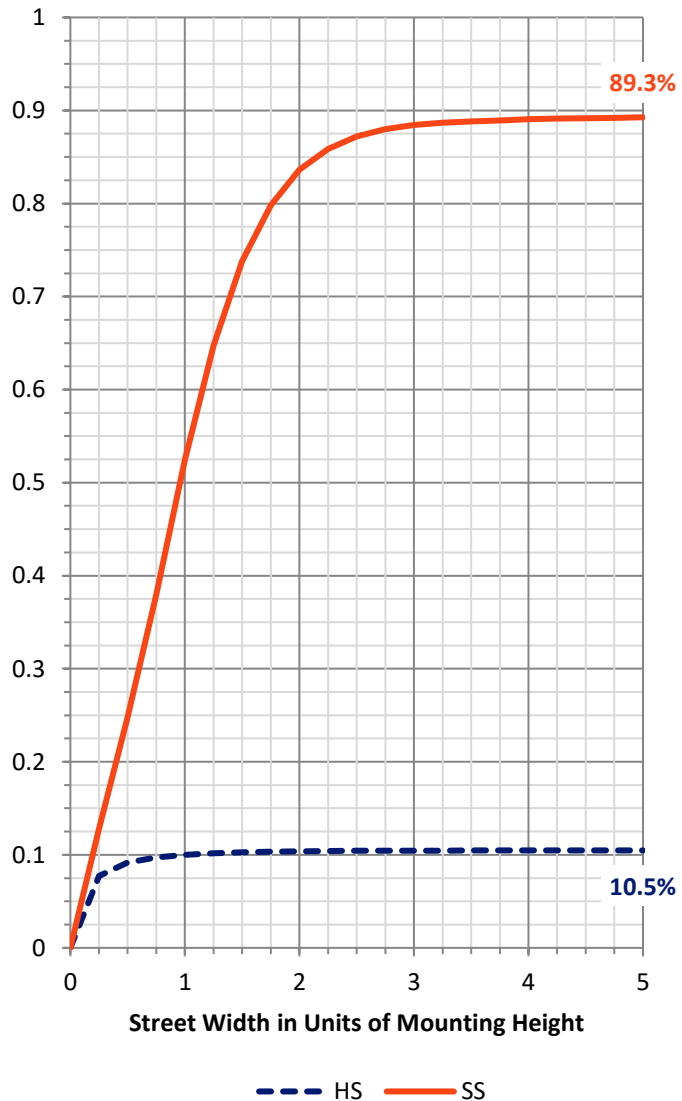
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1453.2	0.0	1453.2
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	12332.1	0.0	12332.1
	% Fixture	89.5	0.0	89.5
Total	Lumens	13785.2	0.0	13785.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.3	1.3
10°-20°	439.9	3.2
20°-30°	680.4	4.9
30°-40°	1234.7	9.0
40°-50°	2330.6	16.9
50°-60°	3367.6	24.4
60°-70°	3584.7	26.0
70°-80°	1899.6	13.8
80°-90°	62.4	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	13785.2	100.0
0°-180°	13785.2	100.0

Coefficient of Utilization



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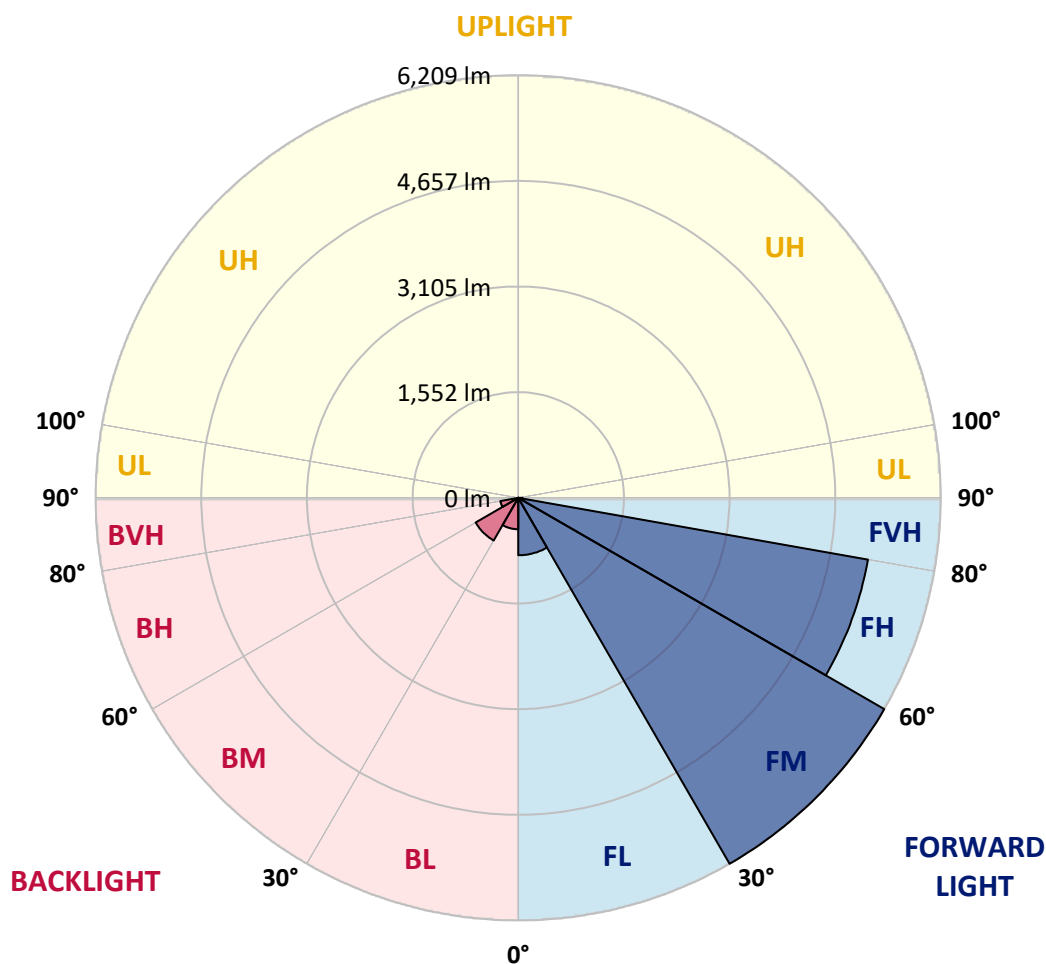
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	844.0	6.1			
FM	(30°-60°)	6209.5	45.0			
FH	(60°-80°)	5217.9	37.9			G3/7500
FVH	(80°-90°)	60.7	0.4			G1/100
BL	(0°-30°)	461.7	3.3	B1/500		
BM	(30°-60°)	723.4	5.2	B1/1000		
BH	(60°-80°)	266.4	1.9	B1/500		G1/500
BVH	(80°-90°)	1.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2
2.5°	2018.8	2037.1	2034.4	2046.6	2051.0	2068.4	2085.9	2109.3	2135.5	2134.6	2152.0
5°	1904.8	1923.0	1927.4	1943.9	1964.8	1991.8	2027.4	2074.5	2123.3	2131.1	2165.9
7.5°	1769.9	1788.9	1800.3	1833.4	1871.6	1927.4	1985.7	2054.5	2135.5	2146.8	2213.8
10°	1634.9	1652.3	1667.1	1714.1	1775.0	1857.7	1952.6	2051.8	2160.7	2177.2	2272.1
12.5°	1551.3	1567.8	1584.3	1625.3	1701.1	1802.1	1930.9	2064.0	2202.5	2226.0	2351.4
15°	1521.7	1536.5	1549.6	1586.1	1656.6	1771.6	1926.5	2089.3	2255.6	2286.9	2447.1
17.5°	1526.0	1533.9	1542.6	1570.5	1639.3	1757.7	1934.4	2132.8	2318.2	2346.1	2542.8
20°	1551.3	1555.6	1556.6	1575.7	1636.6	1755.9	1950.1	2174.6	2377.5	2414.9	2637.7
22.5°	1583.5	1585.3	1583.5	1596.5	1653.1	1768.9	1970.9	2225.1	2443.6	2478.4	2733.5
25°	1734.1	1701.1	1659.3	1634.1	1681.0	1794.2	2002.2	2293.0	2515.9	2549.8	2826.6
27.5°	2201.6	2106.7	1957.0	1788.9	1738.5	1830.8	2045.8	2361.8	2589.0	2619.5	2926.8
30°	2960.7	2836.3	2582.1	2203.3	1923.0	1907.3	2102.4	2430.6	2666.4	2699.5	3033.9
32.5°	3721.6	3691.1	3397.8	2873.7	2338.3	2078.0	2196.4	2523.8	2769.2	2795.3	3178.3
35°	4491.1	4429.3	4189.1	3671.0	2978.1	2425.4	2353.1	2645.6	2904.1	2933.8	3389.1
37.5°	5080.5	5043.1	4894.2	4467.7	3737.3	2961.6	2621.2	2834.5	3100.0	3133.1	3658.9
40°	5601.1	5583.7	5533.2	5252.0	4586.1	3663.2	3038.2	3127.0	3371.6	3410.8	3989.7
42.5°	6010.3	6051.2	6079.9	6001.6	5460.9	4464.2	3598.9	3537.9	3750.3	3790.3	4411.1
45°	6429.0	6442.9	6558.7	6671.8	6329.7	5301.6	4230.9	4019.3	4221.3	4270.9	4916.0
47.5°	6698.0	6753.7	6957.4	7156.8	7060.1	6132.2	4909.9	4587.8	4767.1	4860.2	5481.8
50°	6718.0	6823.3	7103.7	7451.0	7592.1	6922.5	5648.1	5235.5	5426.1	5528.8	6085.9
52.5°	6384.6	6548.2	6982.6	7491.0	7879.3	7592.1	6411.6	5883.2	6127.8	6261.8	6712.7
55°	4895.1	5109.2	6527.3	7273.4	7890.7	8099.6	7155.0	6557.8	6909.5	7061.0	7390.0
57.5°	4264.8	4372.8	5131.9	6895.6	7680.8	8304.1	7827.1	7200.3	7760.1	7948.1	8030.0
60°	3548.3	3690.2	4304.0	6277.5	7396.2	8324.1	8420.8	8029.0	8682.0	8893.5	8616.7
62.5°	2411.4	2565.5	3175.8	5215.4	7007.0	8314.6	8907.5	8882.1	9706.5	9933.8	9113.7
65°	1493.8	1590.5	1992.7	4258.7	6462.9	8325.0	9416.7	9918.1	10787.8	11018.4	9498.5
67.5°	1180.5	1224.9	1434.7	3269.7	5525.4	8090.0	9925.1	10892.3	11805.4	11988.3	9616.0
70°	793.0	820.1	1043.8	2192.1	4110.8	7005.3	9915.5	11381.5	12329.5	12420.9	9187.7
72.5°	417.9	438.8	610.3	1015.1	2482.8	4979.6	8358.1	10796.5	11808.1	11670.5	7853.1
75°	208.9	243.7	410.9	515.4	1060.4	2777.0	5190.2	8512.2	9294.0	8761.2	5038.7
77.5°	158.5	191.5	339.5	339.5	369.1	935.0	2198.1	4642.6	4282.2	3565.8	1479.1
80°	101.0	130.6	296.8	256.8	154.1	237.7	572.8	1300.6	909.7	692.1	269.0
82.5°	59.2	85.3	247.2	169.7	86.2	87.9	162.0	276.9	236.0	183.7	82.7
85°	23.5	55.8	169.7	67.0	33.9	21.7	48.8	59.2	48.8	36.6	20.9
87.5°	0.0	13.0	29.6	0.0	2.6	1.7	3.5	4.3	4.3	3.5	7.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2	2150.2
2.5°	2159.8	2161.5	2166.7	2167.7	2155.5	2139.8	2133.7	2131.1	2120.6	2119.8	2121.5
5°	2185.9	2193.8	2185.9	2163.3	2109.3	2033.6	1976.1	1929.2	1886.5	1873.4	1865.6
7.5°	2238.2	2246.0	2222.5	2133.7	1997.9	1847.3	1711.4	1615.7	1529.5	1497.3	1484.3
10°	2313.0	2323.5	2249.5	2070.2	1829.9	1587.8	1358.0	1196.2	1069.9	1018.5	996.8
12.5°	2407.0	2411.4	2264.3	1973.5	1611.4	1265.8	940.2	766.9	654.7	612.8	599.8
15°	2510.6	2504.6	2266.1	1842.0	1313.6	894.9	613.8	504.1	458.8	444.8	444.8
17.5°	2619.5	2594.3	2231.2	1652.3	987.2	612.0	455.3	429.2	421.4	417.9	417.0
20°	2726.5	2669.9	2167.7	1404.1	708.6	457.0	413.5	405.7	401.3	399.5	397.8
22.5°	2824.1	2727.4	2058.8	1116.0	514.4	404.0	390.8	383.9	376.1	372.6	371.8
25°	2918.9	2760.5	1905.6	847.1	411.7	377.8	367.4	354.3	343.9	339.5	337.7
27.5°	3011.2	2781.4	1714.1	626.8	367.4	353.4	334.3	316.0	308.2	306.5	304.7
30°	3109.5	2788.3	1496.5	467.5	340.4	323.0	295.1	274.2	269.9	270.7	270.7
32.5°	3229.7	2798.8	1277.0	383.0	317.8	286.4	253.3	231.5	228.1	231.5	230.7
35°	3373.4	2819.7	1065.6	352.6	297.8	249.0	213.3	195.0	191.5	194.1	193.2
37.5°	3568.3	2853.6	868.0	346.4	281.2	217.6	179.4	164.5	164.5	165.4	164.5
40°	3827.8	2944.2	691.3	342.1	272.4	194.1	151.5	145.3	148.0	149.8	149.8
42.5°	4143.8	3136.6	571.9	336.9	262.9	183.7	137.6	134.9	139.3	141.0	141.0
45°	4498.1	3380.3	530.1	328.2	254.2	190.6	131.4	127.9	133.1	134.1	134.9
47.5°	4864.6	3618.9	524.9	318.6	245.5	201.1	129.7	121.9	127.9	128.8	129.7
50°	5235.5	3774.7	530.1	303.8	231.5	201.1	130.6	115.8	121.1	123.6	124.5
52.5°	5608.9	3846.1	526.6	271.6	207.2	188.9	130.6	110.6	115.8	117.6	117.6
55°	5971.0	3832.2	473.6	223.8	175.9	167.2	127.1	106.2	109.7	110.6	110.6
57.5°	6257.5	3638.0	375.3	174.1	142.8	139.3	115.8	101.0	103.6	102.7	102.7
60°	6407.2	3211.4	268.1	134.1	112.3	109.7	101.9	94.0	95.7	91.4	90.5
62.5°	6408.9	2647.4	179.4	106.2	89.7	87.0	87.0	84.5	82.7	74.0	71.3
65°	6272.3	2021.4	119.3	84.5	72.3	67.9	73.1	72.3	66.1	54.0	52.3
67.5°	5962.3	1325.0	90.5	66.1	55.8	53.1	58.3	61.0	56.6	45.3	44.4
70°	5325.1	771.3	74.8	51.4	41.8	39.2	47.0	52.3	47.0	36.6	34.8
72.5°	4423.3	416.2	61.0	38.3	28.7	26.1	37.4	42.6	37.4	27.0	26.1
75°	2870.2	222.8	47.0	25.2	14.8	16.5	27.9	31.4	26.1	17.4	15.7
77.5°	963.7	98.4	29.6	12.2	7.0	7.0	16.5	19.2	12.2	6.0	5.2
80°	215.0	40.9	12.2	5.2	2.6	2.6	3.5	3.5	1.7	0.0	0.0
82.5°	70.5	16.5	5.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	27.0	6.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)